What is claimed is:

1. A MHC fusion complex comprising,

a MHC molecule that contains a peptide-binding groove, and

a presenting peptide covalently linked to the MHC molecule, the fusion complex being capable of modulating the activity of a T cell.

2. A fusion complex of claim 1 wherein the MHC molecule is MHC class II.

3. A fusion complex of claim 2 wherein the presenting peptide is covalently linked to the N-terminus of the β chain of the MHC protein.

4. A fusion complex of claim 2 wherein the presenting peptide is covalently linked to the α chain of the MHC protein.

5. A fusion complex of claim 2 wherein the presenting peptide contains from about 6 to 30 amino acids.

6. A fusion complex of claim 1 wherein the MHC molecule is MHC class I.

7. A fusion complex of claim 6 wherein the presenting peptide is covalently linked to the N-terminus of the α chain of the MHC protein.

8. A fusion complex of claim 7 wherein the presenting peptide contains about 6 to 15 amino acids.

9. A fusion complex of claims 1, 2 or 6 wherein a linker sequence is interposed between the MHC molecule and the presenting peptide.

10. A fusion complex of claim 1 wherein a linker sequence is interposed between the MHC molecule and the presenting peptide and the linker contains a cleavage site.

11. A fusion complex of claim 1 wherein a linker sequence is interposed between the MHC molecule and the presenting peptide and the linker sequence contains from 8 to about 12 amino acids.

12. A fusion complex of claim 2 wherein the MHC fusion complex does not contain the transmembrane and cytoplasmic domain of the MHC molecule, and is linked to a constant region of an immunoglobulin.

13. A fusion complex of claim 12 wherein α and β chains of the fusion complex without the transmembrane and cytoplasmic domains are linked to immunoglobulin kappa and heavy chains, respectively.

14. A DNA construct coding for the fusion complex of claims 1 or 2.

15. A multivalent MHC fusion complex comprising two or more linked MHC fusion complexes of claim 1.

16. A fusion complex of claim 1 wherein the complex is a single chain molecule.

17. The fusion complex of claim 16 wherein the MHC molecule is class II and α and β chains of the MHC molecule are covalently linked.

18. The fusion complex of claim 16 wherein the complex is soluble.

19. The fusion complex of claim 18 wherein the complex

comprises covalently linked in sequence: 1) the presenting peptide, 2) the class II β chain lacking transmembrane and cytoplasmic domains, 3) a single chain linker sequence, and 4) the class II α chain lacking transmembrane and cytoplasmic domains.

20. The fusion complex of claim 16 wherein the complex is associated with cellular membranes.

21. The fusion complex of claim 20 wherein the complex comprises covalently linked in sequence: 1) the presenting peptide, 2) the class II β chain lacking transmembrane and cytoplasmic domains, 3) a single chain linker sequence, and 4) the class II α chain containing transmembrane and cytoplasmic domains or a membrane anchor domain.

22. A method for identification of a peptide that can modulate the activity of T cells comprising:

introducing into host cells cloning vectors that each contain DNA constructs that code for a MHC fusion complex of claim 1;

culturing the host cells under conditions suitable for expression of the MHC fusion complex; and

selecting host cells that express MHC fusion complex that modulate the activity of T cells.

23. The method of claim 22 further comprising ligating a plurality of DNA sequences each encoding a presenting peptide to DNA sequences each encoding a MHC molecule to thereby provide the DNA constructs.

24. The method of claim 22 wherein the DNA sequences encoding the presenting peptide are from a genomic DNA library or cDNA library, or are selected DNA fragments.

25. The method of claim 22 wherein host cells are selected that express MHC fusion complex that can antagonize T cell receptors.

26. A method of suppressing an immune response of a mammal comprising administering to the mammal an effective amount of a MHC fusion complex of claims 1, 2, 6, 13 or 16.

27. The method of claim 26 wherein the mammal suffers from or is susceptible to an autoimmune disorder.

28. The method of claim 26 wherein the mammal suffers from is susceptible to multiple sclerosis, insulin-dependent diabetes mellitus, rheumatoid arthritis, myasthenia gravis or chronic allergies.

29. The method of claim 26 wherein cells capable of expressing the MHC fusion complex are administered to the mammal to thereby provide the effective amount of the MHC fusion complex to the mammal.

30. A MHC fusion complex that contains a transmembrane portion, comprising,

a MHC molecule that contains a peptide-binding groove, and

a presenting peptide covalently linked to the MHC molecule, the fusion complex capable of modulating the activity of a T cell.

31. The fusion complex of claim 30 wherein the MHC molecule is MHC class II or MHC class I.

32. The fusion complex of claim 30 wherein a linker sequence is interposed between the MHC molecule and the presenting peptide.

33. The fusion complex of claim 30 wherein the fusion complex is

a single chain molecule.

34. A DNA construct coding for the fusion complex of claim 30.

35. A single recombinant expression vector comprising DNA that codes for the α and β chains of the MHC fusion complex of claims 1, 2, 16 or 30.

36. A single recombinant expression vector comprising DNA that codes for a T cell costimulatory factor and the α and β chains of the MHC fusion complex of claims 1, 2, 16 or 30.

37. A DNA construct that codes for the MHC fusion complex of claim 1 wherein the DNA construct comprises a sequence that codes for a leader sequence, and a restriction enzyme site interposed between sequence coding for the leader sequence and the sequence coding for the present peptide.

38. A DNA construct that codes for the MHC fusion complex of claim 1 wherein the DNA construct comprises

a first restriction enzyme site positioned proximate to the end of the sequence coding for the leader sequence, and

a second restriction enzyme site positioned proximate to beginning of a sequence coding for a linker sequence, the linker sequence being interposed between the MHC molecule and the presenting peptide.

39. The DNA construct of claim 38 wherein the first restriction site is an *Afl*II cleavage site.

40. A DNA construct that codes for the MHC fusion complex of claim 1 wherein the DNA construct comprises a translational initiation sequence that corresponds to the Kozak consensus sequence.

41. A method of inducing an immune response in a mammal comprising administering an effective amount of a DNA sequence comprising the construct of claim 34, or an effective amount of a DNA sequence coding for a single chain fusion molecule of claim 16.

42. A method of vaccinating a mammal against a targeted disorder comprising administering to the mammal an effective amount of a DNA sequence comprising the construct of claim 34, or an effective amount of a DNA sequence coding for a single chain fusion molecule of claim 16.

43. The method of claims 41 or 42 wherein DNA comprising a sequence coding for a T cell co-stimulatory factor is administered to the mammal with teh DNA sequence comprising said construct.

44. The method of claim 43 wherein the sequence coding for a T cell costimulatory factor is the gene for B7 or B7-2.

45. The method of claim 42 wherein the DNA construct is administered in conjunction with another vaccine agent for the disorder.

46. The method of claim 41 wherein the DNA construct is administered intradermally.

47. The method of claim 41 wherein the DNA is administered orally, transdermally or intramuscularly.

48. The method of claim 41 wherein cells capable of expressing the MHC fusion complex are administered to the mammal to thereby provide the effective amount of the MHC fusion complex to the mammal.

49. A method for inducing an immune response in a mammal comprising administering to the mammal an effective amount of a MHC fusion complex of claim 1.

50. A method of suppressing an immune response in a mammal comprising administering to the mammal an effective amount of a DNA sequence comprising the DNA construct o claim 34 wherein the MHC fusion complex comprises 1) a full length MHC molecule that contains a transmembrane domain, and 2) a presenting peptide that is a TcR antagonist or partial agonist and is covalently linked to the MHC protein, or an effective amount of a DNA sequence coding for a single chain fusion molecule of claim 16.